



DT16 Rec'd PCT/PTO 24 MAR 2003

#10

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of )

ALTHOEFER et al. )

Serial No. 10/049,265 )

Filed: February 11, 2002 )

For: MONOCELLULAR OR MULTICELLULAR ORGANISMS FOR PRODUCING  
RIBOFLAVIN )**BOX DAC****RECEIVED**

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OFFICE OF PETITIONS

I hereby certify that this correspondence is being deposited with the  
United States Postal Service as first class mail in an envelope  
addressed to: Commissioner of Patents and Trademarks,  
Washington, D.C. 20231, on:

**March 18, 2003**Date of Deposit **Herbert B. Keil**

Person Making Deposit

Signature

**March 18, 2003**

Date of Signature

Honorable Commissioner of  
Patents and Trademarks  
Washington, D.C. 20231

PETITION TO REVIVE UNDER 37 CFR 1.137(b)

Sir:

The above-mentioned application became abandoned for failure to timely  
properly respond to the Notification of Missing Requirements of April 11, 2002.

Applicants hereby petition to revive this unintentionally abandoned application.

The required response is enclosed herewith in the form of an English translation of the  
claims as originally filed in International Application PCT/EP00/07370. A translation of  
the remainder of the International Application, as filed, was submitted on February 11,  
2002. A check for \$1430 to cover the processing fee under 37 CFR 1.492(f) and the  
petition fee under 37 CFR 1.17(m) is enclosed. The entire delay in filing the required  
reply from the due date for the reply until the filing of a grantable petition was

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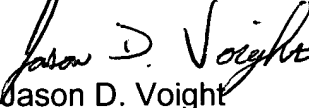
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unintentional.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11-0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

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English translation of claims 1-21 as originally filed in PCT/EP 00/07370

1. A monocellular or multicellular organism, in particular a microorganism, for the biotechnological production of riboflavin, which exhibits an activity of an NAD(P)H-forming enzyme which is higher than that of a wild type of the species *Ashbya gossypii* ATCC 10895.
2. A monocellular or multicellular organism as claimed in claim 1, which exhibits an elevated isocitrate dehydrogenase activity.
3. A monocellular or multicellular organism as claimed in claim 1 or 2, which is a fungus.
4. A monocellular or multicellular organism as claimed in any of claims 1 to 3, which is a fungus from the genus *Ashbya*.
5. A monocellular or multicellular organism as claimed in any of claims 1 to 4, which is a fungus of the species *Ashbya gossypii*.
6. An isocitrate dehydrogenase gene having a nucleotide sequence which encodes the amino acid sequence given in Fig. 11 and its allelic variation.
7. An isocitrate dehydrogenase gene as claimed in claim 6 having the nucleotide sequence from nucleotide 1 to nucleotide 1262 as depicted in Fig. 11 or a substantially equal working DNA sequence.
8. An isocitrate dehydrogenase gene as claimed in claim 6 or 7 having an upstream promoter which possesses the nucleotide sequence from nucleotide -661 to -1 as depicted in Fig. 11 or a substantially equal working DNA sequence.
9. An isocitrate dehydrogenase gene as claimed in any of claims 6 to 8 with the assigned regulatory gene sequences.

10. A gene structure which contains an isocitrate dehydrogenase gene as claimed in any of claims 6 to 9.
11. A vector which contains an isocitrate dehydrogenase gene as claimed in any of claims 6 to 9 or a gene structure as claimed in claim 10.
12. A transformed organism for the production of riboflavin, harboring, in replicatable form, an isocitrate dehydrogenase gene as claimed in any of claims 6 to 9 or a gene structure as claimed in claim 10.
13. A transformed organism as claimed in claim 12 which harbors a vector as claimed in claim 11.
14. A process for the production of riboflavin, which comprises using an organism as claimed in any of claims 1 to 5.
15. A process for preparing a riboflavin-producing monocellular or multicellular organism, wherein it is changed in such a way that the activity of an NAD(P)H-forming enzyme, in comparison to that of a wild type of the species *Ashbya gossypii* ATCC 10895, is higher.
16. A process as claimed in claim 15, wherein the change in the organism is achieved by genetic methods.
17. A process as claimed in claim 15 or 16, wherein the change of the organism is obtained by exchange of the promoter and/or increase of the gene copy number.
18. A process as claimed in any of claims 15 to 17, wherein an enzyme with increased activity is produced by the change of the endogenous isocitrate dehydrogenase gene.
19. The use of a microorganism as claimed in any of claims 1 to 5 and 12 to 13 for

producing riboflavin.

20. The use of an isocitrate dehydrogenase gene as claimed in any of claims 6 to 9 and a gene structure as claimed in claim 10 for preparing an organism as claimed in any of claims 1 to 5 and 12 and 13.
21. The use of a vector as claimed in claim 11, for preparing an organism as claimed in any of claims 1 to 5 or 12 and 13.

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